A Roadmap for East Asian Monetary Integration

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I. Introduction

Asian monetary and financial cooperation attracted the attention of Asian countries after the currency crisis of 1997 and 1998. The countries in East Asia realized that the weakness of the financial sector had instigated the crisis, causing the countries in this region to recognize their economic interdependency. This forced them to cooperate in the monetary and financial sector. After the crisis, the relevant countries have protected themselves in two ways. Firstly, East Asian countries have conducted reform measures to improve their domestic financial systems. Secondly, they have established a regional monetary and financial cooperation system to prevent a recurrence of the crisis.

ASEAN+3 countries introduced the Chiang Mai Initiative (CMI) as a swap arrangement mechanism to support those countries in potential danger of a currency crisis. These countries undertook the Asian Bond Market Initiative (ABMI) to avoid high dependence on the external financial market and use regional resources more efficiently. Even though these systems still have many weaknesses, they have been continually revised to increase their effectiveness.

In addition to the development of a regional crisis-prevention mechanism, Asian countries have come to recognize the need to cooperate more intensively in the monetary and financial sector. Increasing trade relations among the East Asian countries and the trend of adopting FTAs in this region raised the need to stabilize exchange rates between the Asian currencies. The countries have considered introducing coordination mechanisms through macroeconomic policies and a surveillance system. A rising sense of Asian identity envisages even introducing a regional common currency in the future. In fact, the finance ministers of China, Japan, and Korea agreed at the ASEAN+3 Finance Ministers Meeting in 2006 to conduct joint research on monetary integration in East Asia.

The initiatives and discussions on intensifying monetary and financial cooperation thus far have covered a great spectrum from a low level of cooperation through policy dialogues to introducing a common monetary unit. However, each initiative has developed without a concerted roadmap, though all the programs are inter-related and influence each other in the later stages of cooperation. The lack of a common goal or coordinated development may result in an inefficient system or failure. This paper therefore discusses a possible roadmap to a monetary cooperation and integration.

The paper is structured as follows: Chapter II reviews the need for Asian

monetary integration with regard to the benefits and costs. Chapter III reviews the feasibility of monetary integration in East Asia. Chapter IV tries to draw implications from the EU's experience. Then Chapter V lays out recommendations for a possible roadmap to monetary integration in East Asia. Chapter VI emphasizes the importance of a common vision as the basis for a roadmap. Chapter VII is the conclusion.

II. The Need: Why Are We Talking about Monetary Integration in East Asia?

Foreign trade constitutes a high proportion of East Asian countries' GDPs. The volatility of the exchange rates of each currency has a severe impact on their economies due to the negative influence on trade. However, most East Asian countries do not have the capacity to stabilize the exchange rate.

In recent years, the dollar has depreciated sharply against the yen and the won. Since the Chinese yuan is pegged to the dollar, the yuan's depreciation against the won and the yen has become very noticeable. This may have caused the Chinese trade balance against Korea and Japan and even against the United States to improve, because Chinese exports to the United States will be more competitive compared to Korean exports and Japanese exports to the United States. The recent expanding flexibility of the Chinese yuan shows that East Asian countries may compete with each other in third markets and that the exchange rate policies in each country can have significant effects on other economies in the region. Increasing intra-regional trade may cause a kind of competitive devaluation if the countries identify the exchange rate as a major indicator of trade imbalance. The possible conflict over different exchange rate policies raised the desirability of exchange rate coordination between the countries in East Asia. This makes it clear why the region needs monetary cooperation. A lack of coordination for an exchange rate policy would lead to undesirable results in the region as well as in the world.

Intra-regional trade and investment are increasing faster than ever. For instance, economic interactions among China, Japan, and Korea tend to increase continuously. The intra-regional trade of these three countries rose from 16.1 percent of total trade volume to 23.7 percent during 1993 to 2003. The three countries all hold the status of first to third greatest trade partner for each other. Table 1 shows the weights of exports and imports among China, Japan, and Korea. Intra-regional investment expanded from 8.1 percent to 18.7 percent in the period of 1993 to 2003. Korea is now the greatest investor and Japan the second in China. Japan is the second greatest investor in Korea.

In particular, intra-regional investments have increased very rapidly in recent years. The more intensive the investment relations become, the more likely the contagion effect will be. Turbulences in an economy may therefore be transferred to other countries in the region. A coordination mechanism in economic policy seems to have become a necessary ingredient for macroeconomic stabilization in this region.

<Table 1> Weights of Exports and Imports among China, Japan, and Korea

	Country	Korea			Japan			China		
	Year	1980	1990	2005	1980	1990	2005	1980	1990	2005
Exports	Korea	-	-	-	4.1	6.1	7.8	0	0.7	4.6
	Japan	17.4	19.4	7.8	-	-	-	22.2	14.7	11.0
	China	0.1	0.9	24.6	3.9	2.1	13.4	-	-	-
Imports	Korea	-	-	-	2.2	5	4.7	0	0.4	11.6
	Japan	26.3	26.6	18.9	-	-	-	26.5	14.2	15.2
	China	0.1	3.2	14.2	3.1	5.1	21.0	-	-	-

Source: IMF. 2006. Direction of Trade Statistics Database.

In terms of a speculative attack, speculators find small-sized currencies easier to attack than large-sized currencies such as the euro. For this reason, immediately after the currency crisis in East Asia, diverse suggestions to strengthen monetary cooperation among the East Asian countries were made and implemented. Bilateral swap arrangements between Asian central banks under the Chiang Mai Initiative (CMI) are one of the cooperative mechanisms among the East Asian countries.[1]

Even though the CMI does not provide a big enough fund to protect against every possible speculative attack, it can be appreciated as a first trial for institutional monetary cooperation in the region. In addition to the CMI, Asian countries introduced the Asian Bond Market Initiative (ABMI) to vitalize the regional financial market by using regional resources. Diverse policy dialogue channels in ASEAN + 3 have been established.

Even with the great need for monetary cooperation, it would be improbable for East Asian countries to create a single currency such as the euro in the near future. At the same time, it is also true that East Asian countries should move toward a form of institutional monetary cooperation, even if it is soft. If we understand monetary

[1] About the recent development of the CMI see Park(2006) chapter VI and the historical background is well described in Henning (2002).

integration as belonging to the process toward a currency union, the status at the beginning is not important—what is important is whether the countries have begun this integration process or not.

III. The Feasibility of Monetary Integration in East Asia

1. Self-Sustainability

The feasibility of monetary integration can be appraised using three criteria: self-sustainability, optimum currency area (OCA) conditions, and non-economic conditions. Self-sustainability means that East Asia can maintain sustainable economic growth as an independent economic unit. Sustainability can be judged from two dimensions. Firstly, the size of the East Asian economy should be great enough to maintain self-sufficient economic growth. Secondly, East Asia should not be too dependent on outside economies. East Asia's economy is almost equal to those of Europe and North America in terms of purchasing power parity. The size of the East Asian economy surpasses that of the two other blocks. Even when applying a market exchange rate, the East Asian economy is greater than the EU's and its has expanded to equal that of the EU and the United States. The growing trend of trade implies that this region will soon become the region with the greatest trade volume in the world. The volume of foreign reserves allows East Asia predominant status in the world.

<Table 2> Economic Indicators of the Three Blocks (2004, 2005)

(billion dollars)

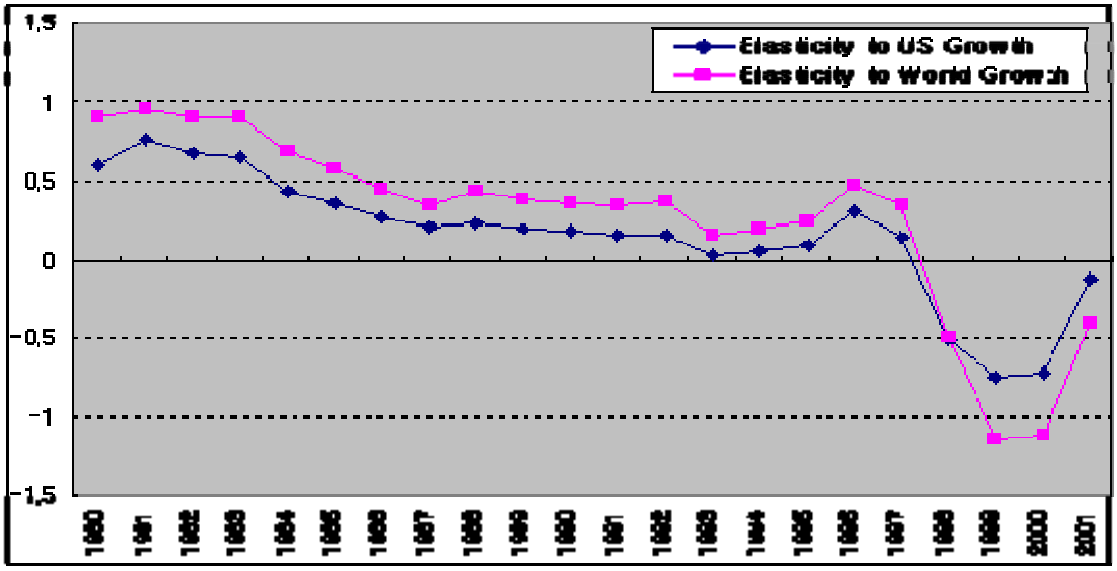
	*East Asia 10		EU15		NAFTA	
**GDP (market exchange rates)	9,167		9,141		12,978	
GDP (purchasing power parity)	14,875		11,552		13,779	
	2004	2005	2004	2005	2004	2005
Trade (with the rest of the world)	2,378	2,734	3,373	3,605	1,312	1,480
Foreign Reserves (excluding gold)	1,472	1,769	178	169	112	112

Note) * East Asia includes Japan, NICs (Korea, Taiwan, Singapore, Hong Kong), ASEAN 4 (Indonesia, Malaysia, the Philippines, Thailand), and China.
**GDP (market exchange rates) was calculated with the data provided in WDI 2005.
Source) IMF IFS (International Financial Statistics),
www.cia.gov (http://www.odci.gov/NS-search-page=results)
WDI(World Development Indicators).

The East Asian region has been strongly dependent on external regions because

of its low purchasing power. However its dependency on outside economies has decreased rapidly with the increasing income level in the region. The world market and the United States do not have as strong an influence on the East Asian market as they had in the past. (See figure 1). Even though the world's economic growth of 1 percent led to 1 percent economic growth in East Asia in the 1970s, the induced economic growth in East Asia decreased to about 0.2 percent in the 1980s. The positive impact of the United States' economic growth by 1 percent on the East Asian economy also declined from 0.8 percent to 0.2 percent.

<Figure 1> East Asian Economic Dependency on External Economies*



* Each number shows the result of rolling regression using the economic growth of ten years (by that year) of the East Asian economy without Japan.
Source: Rhee (2004).

Although there are still some industries that depend strongly on the US market, the general trend shows a decreasing dependency of the East Asian real economy on the US and world markets. To the contrary, East Asia is becoming an export market for the United States. Moreover, East Asian countries are gaining influence on the US economy as an important source of capital.

2. OCA-Criteria

The theories of an optimum currency area (OCA) devised by Mundell (1961)

and developed by McKinnon (1963), Kenen (1967), De Grauwe (1997), and Alesina and Barro (2002) indicate the conditions for an optimum currency area based on a cost-benefit analysis. Among the diverse criteria, some conditions related to macroeconomic volatility were applied to see how East Asia fits into monetary integration.

Openness

Openness has long been a condition for an optimum currency area, because a systematic use of the exchange rate instrument will lead to more price variability in a more open economy than in a relatively closed one. The use of an exchange rate instrument will incur higher costs in an open society.[2]

The trade volume in GDP among the aforementioned nine countries in East Asia occupies 23.7 percent with exception of Japan holding only 3.2 percent. The weight of intra-regional trade in East Asia shows a higher level of regional openness than the EU countries which hold just 21.3 percent of intra-regional trade. This implies that the conditions for monetary integration in East Asia are more favorable than in the EU. (See table4)

Inflation

The inflation rate has decreased since 1990 in most of the East Asian countries, though the average inflation rate (6.0 percent) in this region still shows a higher level than the EU's 4.3 percent. The standard deviation of the inflation rate reveals a relatively low level of volatility and a stabilizing trend except for Indonesia (17.8 percent). This implies that the cost of monetary integration will not be high, even though the benefits of reducing inflation will also not be high. (See table 5)

Volatility of the Real Exchange Rate

East Asia show much higher real exchange rate volatility than the average volatility of European countries. This implies that the cost of monetary integration in Asia may be higher than in Europe. (See table 6)

Business Cycle Synchronization

[2] Mackinnon (1963) has recognized this point and contributed to the OCA theory. See Mackinnon (1963) and the interpretation of De Grauwe (2003, 56–58).

East Asian countries show a much lower degree of co-movement of business cycles of 0.0428 than European countries of 0.0256 . This result means that the potential cost from the loss of monetary policy may override the cost in Europe. (See table 7)

Degree of Financial Integration

The nine East Asian countries invest only 14.3 percent of the total investment into East Asia whereas European countries put 57.2 percent of total investment in Europe. A similar pattern can be confirmed in the data for investments in East Asia. Intra-European investment reaches 60.5 percent while investment among the nine East Asian countries holds only 1.7 percent. This data shows the lower degree of financial integration in East Asia compared to Europe. (See tables 8 and 9)

In addition to the above mentioned criteria, diverse income level and different degree of economic development are often mentioned as barriers of monetary integration in East Asia.

3. Non-Economic Conditions

A broad spectrum of political systems from authoritarian to democratic systems may make it difficult to reach an agreement for a supranational institution in the region. The historical legacy of invasion lays out a stumbling stone in the road for regional integration. A low profile of regional identity and a lack of experience for cooperation are counted as unfavorable conditions. The Confucian traditions in China, Japan, and Korea may not mingle well with the Islamic cultures of some East Asian countries. East Asia cannot expect to receive external support as the European countries did from the United States at the beginning of their regional integration. All these non-economic conditions reveal the relatively unfavorable conditions for integration compared to that of Europe.

IV. The European Experience and Implications

1. The European Experience

The history of monetary integration in Europe shows the process of monetary integration as follows: Macroeconomic policy coordination and exchange rate cooperation → introduction of a common exchange rate system → monetary union.

Policy Coordination and Exchange Rate Cooperation

European countries established the EC finance ministers' meeting (ECOFIN) and the Committee of Governors of the Central Banks (CGCB) to coordinate issues of exchange rate management and international monetary policy in the late 1950s. These institutions have functioned as channels to share important macroeconomic information among the nations, though policy coordination was not very successful due to conflicts of interest.

A Common Exchange Rate Mechanism

European countries created the European Monetary Cooperation Fund to provide a mutual credit facility for intervention in the foreign currency market. This fund was a necessary precondition for stabilizing the exchange rate.

The first system for a common exchange rate was the so-called snake system. This system was established after the international monetary turbulances of the early 1970s and the collapse of the Bretton Woods system. The volatile exchange rates caused by the collapse of the Bretton Woods system made the EC countries concerned about the difficulties in maintaining a common agricultural policy. The European countries introduced an exchange-rate mechanism allowing a maximum total band of 2.25 percent against the EC currencies, using the dollar as an anchor currency. In this system, the European currencies were inter-related through the dollar and were allowed to fluctuate within the given bands around the dollar. This exchange rate mechanism was called the snake in the tunnel, because the EC countries had to maintain the band between the European currencies as well as to the dollar. However, it was not able to maintain this band and keep the band to the dollar at the same time. Many countries such as Denmark, France, Ireland, Italy and the UK had to leave and come back repeatedly to the arrangement.

The second common exchange rate system was the European Monetary System (EMS). The EMS was initiated by the Franco-German alliance between French president Giscard d'Estaing and German chancellor Helmut Schmidt. The EMS was

designed in the course of 1978 and became operational in 1979. The EMS has a similar structure to the snake system with a fixed exchange rate system allowing fluctuations within a band between European currencies. However, the European currencies had to pay attention to the internal exchange rate between themselves only because the EMS had created a composite currency—the European Currency Unit (ECU)—as its anchor currency.[3] This relieved the participating countries of the burden of maintaining direct parity with a currency outside the EC, the dollar. The EMS improved the institutional rules for realignments and the backing finance facilities for exchange market intervention.

Monetary Union

At the Hanover summit of June 1988, the Council appointed Delors Committee to design further moves beyond EMS. The Delors report recommended the move to monetary integration. This report contains three major stages to reach EMU. The summit in Madrid in June 1989 decided to proceed the economic and monetary union on the basis of the proposals in the Delors plan and to start the first stage on 1 July 1990.

The first stage was to strengthen the role of the Committee of Central Banks in monitoring and consulting each other on monetary policies. All the countries were to participate in the EMS at the first stage. In the second stage the Europen Monetary Institute (EMI) was to be established in the spirit of US Federal Reserve System. The EMI was the predecessor of the Euroepan Centarl Bank. Memebr states were to meet convergence criteria incorporated in the Treaty of Maastricht to achieve more stable and uniform development within the group.

The third stage would create the European Central Bank (ECB). National countries would transfer the authority of national monetary policy to the ECB. The members introduced a single regional currency, the euro on January 1, 1999. The exchange rate of national currencies of EU member states were fixed vis-à-vis the euro. The euro existed only as book money until January 1, 2002, when the euro banknotes and coins were put into circulation.

2. Major Components of a Roadmap

The Process of Monetary Integration

[3] European countries perceived the instability of the dollar as the main problem in maintaining stable exchange rates in snake system (Gros and Thygesen 1998, 43).

The European experience provides a model of a process of monetary integration. Regional monetary integration can occur as follows:

Information sharing and policy dialogue → Loose exchange rate cooperation and policy coordination → Close exchange rate cooperation and policy coordination → A fixed exchange rate system → A currency union through substituting national currencies with a common currency

The steps toward monetary integration in Europe can be a general process for individual countries trying to intensify regional cooperation in the monetary field. With an increasing degree of cooperation, the countries had to give up a greater part of their national rights.

Information sharing and policy dialogue should be the first step because sharing correct information is a necessary premise for mutual understanding and trust. Then the countries can coordinate to stabilize the regional exchange rate. A regional exchange rate system consists of three pillars, namely, a financing system, an anchor currency, and an exchange rate mechanism. Europe established the EMCF (European Monetary Cooperation Fund) for financing, the ECU (European Currency Unit) as anchor currency, and the EERM (European Exchange Rate Mechanism) for an exchange rate mechanism. At the beginning the band was relatively wide and then it became narrower. Then the EU created convergence criteria to select the countries appropriate for a currency union. Those countries satisfying the conditions joined the currency union by giving up their national currency and adopting a common currency.

Timing and Sequencing

In the process of monetary integration, the countries involved have to decide when to take the next step and whether the process should be conducted in the same sequence as the EU. East Asian countries already discussed the possibility of introducing a regional currency at the very beginning of monetary cooperation. The sequencing can be determined by feasibility and the need of participating countries. The countries can decide on timing by rule or by discretion. If the countries decide by rule, it could hurt the cooperative atmosphere in the region. However, if everything is to be determined by discretion, this could cause high economic costs.

Individual countries also face the problem of timing and sequencing when the countries have different macroeconomic conditions. The European countries have adopted a multi-track approach and the countries fulfilling the necessary conditions went over to next stage earlier than the others. A multi-track approach could push the integration process forward. A multi-track approach can be applied at the stage of exchange rate cooperation and currency union membership.

V. A Roadmap for Monetary Integration in East Asia

After the financial crisis, East Asian countries established a channel for policy dialogue and information sharing. The ASEAN+3 Finance Ministers hold the ASEAN+3 Economic Review and Policy Dialogue (ERPD) meeting annually and their deputies meet biannually. They monitor major macroeconomic changes, including short-term capital flows, to prevent a currency crisis.

The ASEAN+3 Finance Ministers introduced regional financial arrangements in May 2000 at Chiang Mai, Thailand. The Chiang Mai Initiative (CMI) was constructed on the existing ASEAN Swap Arrangement and a new network of bilateral swap arrangements among ASEAN+3. CMI has expanded the financing volume available and improved the decision-making process from a bilateral to a multilateral system. The ASEAN+3 Finance Ministers have agreed, in May 2006, to set up a new task force to develop CMI further into an efficient regional financing arrangement.

The ASEAN+3 countries have a policy dialogue channel and financing arrangements. These arrangements are mainly equipped with crisis prevention mechanisms. They don't have the active function of accelerating monetary integration. However, they can surely evolve into monetary cooperation institutions.

There have been many suggestions on possible roadmaps for Asian monetary integration. For instance, Rana (2006) suggested developing CMI into an Asian Monetary Cooperation Fund (AMCF) and then into an Asian Central Bank.[4] At the beginning, CMI should function as a crisis prevention arrangement. Then it can evolve into an AMCF. An AMCF should be able to issue Asian Currency Units and explore the feasibility of exchange rate coordination. The exchange rate coordination mechanism can be strengthened into a common monetary system like the EMS in Europe. AMCF can be transformed into an Asian Central Bank which issues a single currency with participating countries adopting this regional currency in place of their national currency.

[4] See Rana (2006, 16–18).

Haihong (2006) makes a similar suggestion.[5] In the short term, CMI should target to the prevention of a currency crisis in the region. Policy dialogue and economic surveillance must be institutionalized in this first stage. In the medium term an Asian Monetary Fund (AMF) would take on the role of regional financing facility. East Asian countries should also introduce a joint exchange rate mechanism like EMS to stabilize intra-regional exchchange rates. In the long term a monetary union can be established.

The suggestions and experience of the European countries classify the monetary integration process in three stages. The first stage aims at the creation of an environment for coordinated policy making. The second stage targets establishing a common exchange rate mechanism to stabilize intra-regional exchange rates. The final stage creates a central bank for a single regional currency. Each stage has several measures to be done.

In stage I, the participating countries should deal with urgent regional issues in the monetary sector.[6] The urgent task in East Asia is to contain a possible recurrence of a financial crisis. Therefore the CMI must develop into an institution which has a big enough capacity to protect the countries from speculative attacks and a possible currency crisis. A mechanism for policy coordination and information sharing should be institutionalized to continue the cooperation toward a currency union. There must be regular meetings of representatives from the finance ministries of each member country and central banks.[7] CMI may be able to contain a system to mobilize the governmental officials for policy consultation and information sharing if it were to become a multilateral body.

<Table 3> The Three Stages of the Monetary Integration Process

Stages	Stage I	Stage II	Stage III
Objective	Environment for coordinated policy making	Common exchange rate mechanism	Single currency

[5] Haihong (2006) shows similar idea on how to proceed with the monetary integration process.
[6] European countries established a European Payments Union to solve the lack of hard currency in 1950s. Existing urgent problems can push the countries to cooperate more actively. Those experiences may cause the countries to accumulate experience in cooperating with regional partners.
[7] European countries established a Monetary Committee according to the Treaty of Rome and Committee of Governors of the Central Banks of the member countries. The governors had monthly meetings in conjunction with BIS meetings (Gros and Thygesen 1998, 10).

Tasks	Multilateralize CMI Institutionalize policy dialogue Create a system for information sharing	Exchange rate cooperation Introduce a regional currency unit Create financing facilities for intervention	Create an Asian central bank Substitute national currencies with a regional currency unit

Stage II requires a more long-term perspective because a common exchange rate mechanism needs stronger engagement from participating countries and an institutional infrastructure. The countries need to have a numeraire for an exchange rate mechanism, finance facilities for intervention, and sets of rules for intervention and realignments. Besides an institutional infrastructure, the countries should be prepared to give up their monetary sovereignty which may take time to be accepted by all the members. If the participating countries envisage a currency union, there should be a blueprint or a roadmap to lead them to the final goal so that the participants can ensure that they are on the right track at every moment.[8] The bandwidth for exchange rate coordination should decline step by step over a long period of time. Otherwise the countries would have difficulties in harmonizing their macroeconomic policies with other members. The East Asian countries are talking already about a Regional Currency Unit (RCU). The ASEAN+3 research group has been dealing with this issue for three years. Even if active exchange rate cooperation in the region is not an imminent goal of this discussion, an RCU may be used as a deviation indicator and an instrument for settlements in the region. This shows the possibility of the early introduction of an RCU, which would imply the realization of exchange rate cooperation in the near future as well.

The introduction of a single currency will take very long time even if exchange rate cooperation is implemented successfully. With the establishment of a currency union, national monetary sovereignty will be transferred to a regional monetary authority. The loss of monetary sovereignty would cause a loss of monetary policy and a portion of financial policy as well. The more severe problem would be the psychological burden of the loss of important symbols of national identity. Therefore, the introduction of a single currency would require enough time for the people to be prepared to accept a single common currency.

The problem with the efforts for regional monetary cooperation in East Asia is that the countries do not have any agreement on a detailed roadmap for monetary

[8] The Werner Plan of 1970 functioned as a blueprint in Europe even though the monetary integration process did not follow its timeline. The Delors Plan has adopted a great part of the ideas in the Werner Plan.

integration. Intensive exchange rate cooperation requires institutional and political infrastructure. Participating countries could hardly join monetary cooperation if there were not any binding political agreements or a promising future. Even though the East Asian countries have initiated several cooperation programs, they are not linked. For instance, CMI, ABMI, and RCU are not connected but instead develop individually. If there is not an agreement on the coordination mechanism, those programs will only develop until they fulfill their basic tasks. Creating a roadmap must precede all other efforts for regional monetary cooperation so as not to complicate the cooperation process and to encourage participating countries.

VI. A Common Vision as the Basis for a Roadmap

Monetary cooperation has been a long discussed issue in the Asian region. May 2006, the finance ministers of China, Japan, and Korea announced that they would begin a joint research project on monetary integration in East Asia. But what can these countries do when the economic and political environment for cooperation has not improved at all? The vision of establishing monetary integration can be set as the final conclusion of East Asian economic integration. There exist many attempts to create bilateral and multilateral FTAs among the East Asian countries. The expansion of FTA-seeking regional economic integration pursues the reduction of barriers between national markets in this region. Monetary integration may crown the conclusion of the economic integration process.[9]

East Asian countries can introduce an RCU and use it to stabilize national currencies as well as to develop regional financial markets in the beginning of the long-term process of monetary integration, after establishing their vision of monetary integration in East Asia. Issuing bonds on the basis of an RCU is a potential project to make use of increasing reserves in East Asia in the short run. A common regional currency like an RCU can become a supplementary framework for the development of a regional financial market in Asia. However, the EU's experience shows that the use of a private ECU could be activated only if the use of an official ECU were guaranteed in

[9] Monetary integration is a very long-term process as revealed by the European experience. The European economic integration process took over 50 years. The European leaders in the 1950s had the wisdom to set their vision of economic and monetary integration by announcing the Schuman plan, recognizing Europe as one economic unit. Making good use of the groundwork, the following generations were able to proceed with the integration process when they felt ready to utilize an integrated regional market.

the official sector. The idea to develop an Asian bond market linked to an RCU could, therefore, become successful if the usefulness of the RCU were secured in the official sector. It has been suggested that East Asia develop an RCU and employ it as a deviation indicator for exchange rate cooperation in East Asia. This idea can be utilized when there is a guarantee of long-term and stable regional macroeconomic cooperation to motivate the countries' active participation. Establishing a long-term vision of monetary union can send out a signal for a guarantee of long-term cooperation. An RCU could serve as a useful instrument for the introduction of a regional settlement system to link Asian financial markets as well as a swap arrangement and surveillance mechanisms to improve the efficiency of CMI. All these mechanisms set the active acceptance of an RCU in the related countries forth as a premise for success. A long-term vision of monetary union in this region will increase the acceptance of an RCU due to the possibility of it becoming a common single currency in the future.

If there is a long-term vision of monetary union, it will encourage the Asian countries to induce a regional exchange rate cooperation mechanism for stabilizing an internal and external exchange rate in the future. The international influence of the Asian countries will increase through a common policy against the pressure of other countries with regard to an exchange rate policy as well as a reserve policy. Asian countries can reflect their regional interests in shaping its international monetary and financial structure. It is becoming more important to formulate a common policy among East Asian countries in response to international pressure to change the exchange rate policy of East Asian countries or the possible abrupt devaluation of the dollar. Setting a monetary union as a long-term vision will stimulate economic cooperation between the Asian countries. Representing the Asian economy as a unit strengthens its negotiating power in relation to other countries and regional bodies.

A long-term vision of monetary union could be presented in the form of a common declaration of summits or by the finance ministers of the participating countries. A roadmap should follow the declaration to make it credible. However, if the roadmap contained the economic conditions for the integration procedures without a binding timeline, it would not incur any costs from the participating countries. The declaration can become a landmark and provide guidelines if the integration process advances. Many ideas for regional cooperation making use of an RCU will gain a stable basis through the declaration and the probability of success in the market will be enhanced.

Many economists and experts have argued for the necessity of monetary and financial cooperation in East Asia for several decades. Some official groups and

governments have joined this argument as well. Recently the ADB took the initiative to introduce and utilize an RCU, and the finance ministers of China, Japan, and Korea agreed to engage in joint research on Asian monetary integration in May 2006. After the agreement, International society and the markets have got strong expectations for their leadership for regional monetary cooperation. If the countries fail to move forward to monetary integration, international society will devalue the cooperative capacity of the East Asian countries. In this case a strong defeatism will prevail among citizens in this region.

VII. Conclusion

The Asian financial crisis in 1997 had two lasting effects: the awakening of a feeling of regional identity in East Asia and the drive for a regional protection mechanism against a possible recurrence of crisis. Recently the region has come to face another challenge of maintaining exchange rate stability because East Asian countries are being blamed for global imbalances. The accumulation of foreign reserves as a self-protective measure after the currency crisis and inflow of portfolio investments have contributed to the deepening of global imbalance. East Asian countries have to find a way to relieve the pressure of external exchange rate readjustments without causing serious disturbances to intra-regional trade relations. This is why East Asian countries are attempting to establish not only financing arrangements against a currency crisis but also more cooperative mechanisms.

Even though East Asian countries have discussed the need for regional monetary cooperation for a long time, they have not even agreed on a roadmap for monetary integration. There have only been projects in response to urgent needs without a coordination mechanism. Part of the reason for the diversity of projects and initiatives in the region is because the East Asian countries have not yet agreed to a common vision. Without a common vision the countries cannot dare to draw a roadmap for monetary integration.

Therefore, the East Asian countries should first agree on a common vision like a currency union or an economic union to start the monetary integration process. Then the participating countries can make a three-stage roadmap for monetary integration on the basis of this common vision. The realization of the vision through the roadmap will take a long time—probably several decades. Although the integration process will take a long time, the process must begin at some point. The most important thing to start the

process is therefore to arrive at a common vision for East Asia in the monetary sector and draw a roadmap to realize the vision.

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<Table 4> Trade-GDP Relations (1990–2003 Average)*

(percent)

Country	Trade Partners				
	US	Europe	Japan	East Asia 9	World
Japan	2.1	1.4	.	3.2	8.3
China	3.9	3.4	3.7	9.6	20.6
Hong Kong	12.8	14.0	10.6	53.0	119.8
Indonesia	3.3	4.1	6.1	8.6	24.7
Korea	5.5	3.6	4.6	7.3	27.7
Malaysia	15.3	11.7	13.9	36.9	82.6
Philippines	9.6	5.3	7.3	13.0	35.7
Singapore	22.3	18.8	16.6	55.4	141.0
Taiwan	11.2	6.3	9.2	16.9	51.1
Thailand	6.7	6.6	8.6	12.7	41.8
Average (East Asia 9)	10.1	8.2	9.0	23.7	60.6
Average (Europe)	2.3	21.1	0.9	1.6	31.2
United States	.	1.9	1.1	1.8	9.0

* The figures show the relation of average exports and imports between two countries to GDP.

<Table 5> Average and Standard Deviation of Inflation 1975–89, 1990–2003

(percent)

Country	1975-89		1990-2003	
	mean	s.d.	mean	s.d.
Japan	3.6	-0.2	2.4	1.6
China	3.8	5.3	3.9	6.7
Hong Kong, China	8.7	2.6	4.1	6.1
Indonesia	13.0	13.8	8.9	17.8
Korea, Rep.	13.3	5.5	8.5	3.4
Malaysia	3.9	3.3	5.5	2.5
Philippines	13.3	8.2	11.7	3.3
Singapore	3.2	1.2	3.3	2.9
Taiwan	4.9	1.5	4.8	2.2
Thailand	5.6	3.5	3.2	3.1
Average (East Asia 9)	7.7	5.0	6.0	5.3
Average (Europe)	10.5	3.3	4.3	2.2
United States	5.6	2.2	2.6	0.8

<Table 6> Indicators of Price Synchronization*

	1975–1989				1990–2000			
	US	Europe	Japan	East Asia 9	US	Europe	Japan	East Asia 9
Japan	0.1328	0.1052	.	0.1393	0.0986	0.1485	.	0.1327
China	0.1094	0.1384	0.1561	0.0987	0.1479	0.1985	0.172	0.1975
Hong Kong	0.0643	0.0965	0.1303	0.0754	0.0322	0.1076	0.1053	0.1423
Indonesia	0.1149	0.1794	0.1890	0.1250	0.2976	0.3082	0.2572	0.2354
Korea, Rep.	0.0902	0.1200	0.1233	0.0839	0.1441	0.1594	0.1114	0.1204
Malaysia	0.0548	0.1096	0.1356	0.0774	0.1492	0.194	0.1564	0.1394
Philippines	0.0734	0.1273	0.1526	0.0746	0.1197	0.1258	0.1231	0.1267
Singapore	0.0409	0.1043	0.1249	0.0719	0.0699	0.0991	0.0857	0.1115
Taiwan	0.0866	0.1088	0.1236	0.0819	0.0693	0.1026	0.0955	0.1114
Thailand	0.0512	0.0978	0.1186	0.0662	0.0863	0.11	0.0879	0.1123
Average (East Asia 9)	0.0762	0.1202	0.1393	0.0839	0.1240	0.1561	0.1327	0.1441
Average (Europe)	0.1047	0.0643	0.1052	0.1202	0.1133	0.0554	0.1485	0.1561
United States	.	0.1047	0.1328	0.0762	.	0.1133	0.0986	0.124

* The figures are calculated according to Alesina, Barro, Tenreyro (2002) and the high figure implies low synchronization.

<Table 7> Product (Net GDP) Synchronization

	1975–1989				1990–2003			
	US	Europe	Japan	East Asia 9	US	Europe	Japan	East Asia 9
Japan	0.0296	0.0251	.	0.0376	0.0249	0.0270	.	0.0381
China	0.0619	0.0614	0.0584	0.0656	0.0395	0.0429	0.0403	0.0516
Hong Kong	0.0397	0.0486	0.0495	0.0484	0.0423	0.0483	0.0350	0.0396
Indonesia	0.0323	0.0400	0.0311	0.0422	0.0521	0.0560	0.0428	0.0389
Korea, Rep.	0.0342	0.0439	0.0383	0.0483	0.0565	0.0572	0.0489	0.0457
Malaysia	0.0337	0.0356	0.0375	0.0424	0.0289	0.0345	0.0277	0.0344
Philippines	0.0504	0.0424	0.0349	0.0469	0.0325	0.0366	0.0312	0.0403
Singapore	0.0409	0.0414	0.0338	0.0433	0.0432	0.0523	0.0433	0.0535
Taiwan	0.0251	0.0373	0.0361	0.0400	0.0235	0.0318	0.0294	0.0419
Thailand	0.0278	0.0327	0.0190	0.0389	0.0525	0.0571	0.0448	0.0397
Average (East Asia 9)	0.0384	0.0426	0.0376	0.0462	0.0412	0.0463	0.0382	0.0428
Average (Europe)	0.0320	0.0321	0.0251	0.0426	0.0230	0.0256	0.0270	0.0463
United States	.	0.0320	0.0296	0.0385	.	0.0230	0.0249	0.0412

*A high figure means low synchronization of the business cycle.

<Table 8> East Asia's Stock of Financial Assets (2004)

(million dollars)

Source Country	Portfolio assets held in each region				Total
	US	Europe	Japan	East Asia 9	
Japan	694,382	753,732		27,808	2,009,672
Hong Kong	59,648	118,688	9,959	54,082	400,863
Indonesia	209	406	−	130	1,382
Korea	12,733	9,220	1,020	1,040	28,368
Malaysia	479	1,327	53	765	3,248
Philippines	2,915	1,246	19	172	4,548
Singapore	31,772	58,623	7,514	45,711	180,120
Thailand	456	377	50	327	1,644
Average (East Asia 8)	100,324	117,952	2,327	16,254	236,858
	(42.36)	(49.80)	(0.98)	(6.86)	(100)
Average (*Europe)	132,759	513,497	25,807	12,543	684,607
	(19.39)	(75.01)	(3.77)	(1.83)	(100)
United States		1,769,111	369,806	183,361	3,764,346

Note) * Europe includes 15 countries : Belgium, France, Germany, Italy, Luxembourg, Netherlands, Ireland, Greece, Portugal, Spain, Finland, Austria, United Kingdoms, Denmark, Sweden

Source) CPIS(Coordinated Portfolio Investment Survey), IMF

<Table 9> International Investment in East Asia (2004)

(million dollars)

Host Country	Portfolio assets held in each region				Total
	US	Europe	Japan	East Asia 9	
Japan	369,806	357,165		18,615	947,411
Hong Kong	37,350	55,829	9,660	8,927	125,201
Indonesia	6,987	6,237	191	3,471	24,472
Korea	73,613	55,726	6,216	18,114	164,952
Malaysia	10,690	16,282	1,322	25,138	55,110
Philippines	5,690	6,788	1,394	1,918	17,126
Singapore	29,195	22,346	3,318	7,996	68,520
Thailand	7,113	10,454	932	6,049	25,952
Average (East Asia 8)	67,556	66,353	2,879	11,279	148,067
	(45.63)	(44.81)	(1.94)	(7.62)	(100)
Average (Europe)	117,941	513,697	50,249	12,604	694,491
	(16.98)	(73.97)	(7.24)	(1.81)	(100)
United States		1,991,391	694,382	108,211	4,841,141

Note) * Europe includes 15 countries : Belgium, France, Germany, Italy, Luxembourg, Netherlands, Ireland, Greece, Portugal, Spain, Finland, Austria, United Kingdoms, Denmark, Sweden

Source) CPIS(Coordinated Portfolio Investment Survey), IMF